

Thermal Phase Change Material

21-720

Product Technical Datasheet



Product Description

Phase change material is designed to maximize heat sink performance and improve component reliability. 21-720 Series Thermal Phase Change Material completely fills interfacial air gaps and voids. It also displaces entrapped air between power dissipating electronic components.

At room temperature, 21-720 material is solid and easy to handle. This allows it to be consistently and cleanly applied as dry pad to a heat sink or component surface. Upon reaching its melting temperature of 52 °C, 21-720 begins to soften and flow, filling the microscopic irregularities of the component it comes into contact with. The result is an interface with minimal bond-line thickness and thermal contact resistance

21-720 PCM can be supplied as sheets, rolls and custom die-cut configurations.

Features and Benefits

- Low total thermal resistance(0.015°C-in²/W @ 50 psi)
- Inherently tacky and no adhesive required
- High reliability
- RoHS compliant

Typical Applications

- CPUs (Notebooks, Desktops, Servers)
- Chipsets
- GPUs
- ASICS Chips

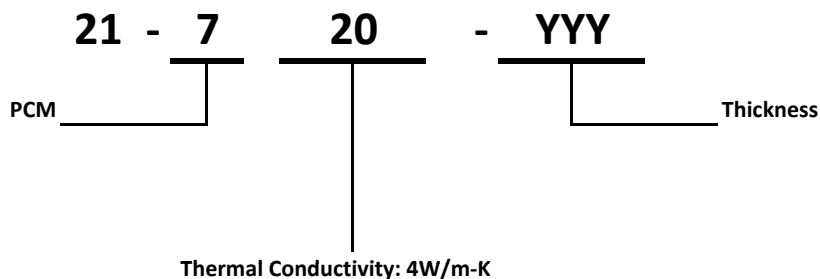
Preliminary Technical Data

PROPERTY	21-720	TEST METHOD
Construction	Non-reinforced film	
Color	Grey	Visual
Phase Transition Temperature (°C)	52	ASTM D3418
Thickness (mm)	0.13-0.25	ASTM D374
Density (g/cm ³)	2.6	ASTM D2638 Modified
Flame Rating	V-0	UL-94
Continuous Temperature (°C)	-40~125	
THERMAL		
Thermal Conductivity (W/m.k)	4.0	ASTM D5470
Thermal Resistance(°C-in ² /W)* @ 10 psi (69 KPa) @ 50 psi (345 KPa)	0.03 0.015	ASTM D5470
ELECTRICAL		
Volume Resistivity (Ohm-cm)	0.03	ASTM D257

* Typical value of 0.13 mm sample at 70°C

Ordering Information

- Standard sheet size: 16" X 8" (406mmX203mm)



- Part Number Examples
21-720-010-0003 = PCM 21-720 in a thickness of 0.1mm